

(43) International Publication Date
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number
WO 2005/076368 A1(51) International Patent Classification⁷: H01L 29/792,
21/336, 21/8246

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(21) International Application Number:
PCT/IB2004/052905

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(22) International Filing Date:
22 December 2004 (22.12.2004)

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(25) Filing Language: English

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(26) Publication Language: English

(30) Priority Data:
04100011.8 6 January 2004 (06.01.2004) EP

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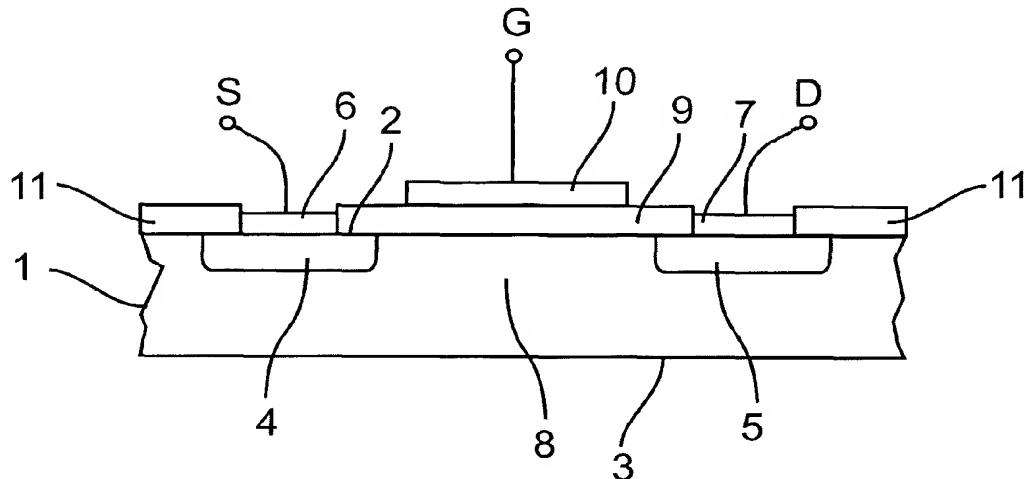
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[Continued on next page]

(54) Title: TRANSISTOR WITH QUANTUM DOTS IN ITS TUNNELLING LAYER



(57) **Abstract:** The invention describes a semiconductor component, which is arranged in a semiconductor body (1), with at least one source zone (4) and with at least one drain zone (5) of in each case a first conductivity type, with at least one body zone (8) of a second conductivity type arranged in each case between source zone and drain zone, and with at least one gate electrode (10) insulated relative to the semiconductor body by means of an insulating layer (9), the insulating layer (9) being a consolidated, preferably sintered, layer containing quantum dots. The invention further describes a method of producing such a semiconductor component in which a dielectric suspension containing quantum dots is applied to a semiconductor body and then consolidated, for example by sintering.

WO 2005/076368 A1



Published:

— *with international search report*

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